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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,944	11/05/2003	Kozo Kojima	FUJY 20.721	7131
26304 7590 02/05/2008 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER FORD, GRANT M	
			ART UNIT 2141	PAPER NUMBER
			MAIL DATE 02/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/701,944

Applicant(s)

KOJIMA, KOZO

Examiner

Grant Ford

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1 and 3-8 have been considered but  
5 are moot in view of the new ground(s) of rejection.

Regarding the Applicant's assertion that the prior art of Akahane does not  
disclose, teach, or suggest "packet communication between different VPNs", the  
Examiner disagrees. Akahane discloses packet communication between different VPNs  
10 at paragraph 0050, which discusses interconnecting different VPNs. Nevertheless, a  
new grounds of rejection has been presented below in accordance with the presentation  
of newly amended claim limitations.

### *Claim Rejections - 35 USC § 103*

15 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

20 (a) A patent may not be obtained though the invention is not identically disclosed or described as set  
forth in section 102 of this title, if the differences between the subject matter sought to be patented and  
the prior art are such that the subject matter as a whole would have been obvious at the time the  
invention was made to a person having ordinary skill in the art to which said subject matter pertains.  
Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable  
over Akahane et al. (US 2001/0050914), hereinafter referred to as Akahane, in view of  
25 Rekhter et al., (6,463,061), hereinafter referred to as Rekhter.

a. As per claims 1 and 7, Akahane discloses a packet routing device accommodating a plurality of virtual private networks (VPNs), comprising:

a switch (Figure 4 element 51); and

a plurality of packet processing units each having a routing table, wherein

5 each packet processing unit, in the case of receiving a packet received at a receipt port, searches, as a receiving-side packet processing unit, for a transmitting-side packet processing unit for forwarding the packet to a transmission port and a transmitting-side VPN identifier of the packet from the routing table by use of a receiving-side VPN identifier of the packet, and forwards the packet to a packet processing unit

10 corresponding to the transmitting-side packet processing unit via the switch, the receiving side VPN identifier indicating a VPN to which a transmission source of the packet belongs and the transmitting-side VPN identifier indicating a VPN to which a transmission destination of the packet belongs, and, in the case of receiving a packet and a transmitting-side VPN identifier via the switch from a receiving-side packet

15 processing unit, searches, as a transmitting-side packet processing unit, for a transmission port for the packet corresponding to the transmitting-side VPN identifier from the routing table by use of a transmitting-side VPN identifier of the packet, and forwards the packet to the transmission port searched for (Fig. 4-5, Para. 0049-0050,0054,0058-0060,0062,0065-0066,0068-0069,0071-0072,0079,0088). However,

20 Akahane fails to explicitly disclose where the routing table has an entry mutually used with respect to both of routing for packet communication in a VPN when a transmitting-side VPN identifier is the same as a receiving-side VPN identifier and routing for packet

communication between different VPNs when a transmitting-side VPN identifier is different from a receiving-side VPN identifier.

Rekhter teaches wherein the routing table has an entry mutually used with respect to both of routing for packet communication in a VPN when a transmitting-side VPN identifier is the same as a receiving-side VPN identifier and routing for packet communication between different VPNs when a transmitting-side VPN identifier is different from a receiving-side VPN identifier (Col. 30 line 50 through Col. 32 line 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of internal/external VPN determination and routing with the VPN routing system of Akahane. One of ordinary skill in the art would have done so for the purpose of preserving network resources and providing proper per-VPN routing if a packet is to be routed within a specified internal VPN rather than an external VPN (Col 31 lines 29-48).

b. As per claim 3, Akahane discloses wherein each of the packet processing units as a receiving-side packet processing unit, in case a receiving-side VPN identifier is the same as a transmitting-side VPN identifier searched for, forwards a transmitting-side VPN identifier having an equal value to the receiving-side VPN identifier, to a transmitting-side packet processing unit (Para. 0066-0069).

c. As per claim 4, Akahane discloses wherein each of the packet processing units, in the case of functioning as a receiving-side packet processing unit, searches for a VPN identifier, as a receiving-side VPN identifier, corresponding to a receipt port of a packet (Fig. 6, Para. 0054-0057, 0084, 0088).

d. As per claim 5, Akahane discloses wherein each of the packet processing units, in the case of functioning as a receiving-side packet processing unit, searches for a VPN identifier, as a receiving-side VPN identifier, corresponding to a receipt port of a packet (Fig. 6, Para. 0054-0057, 0084, 0088).

5 e. As per claim 6, Akahane discloses entry registering means for executing a process of registering one or more entries in the routing table of each packet processing unit, wherein the entry registering means receives a plurality of entries as candidates for registration with respect to a certain packet processing unit, each entry includes a VPN identifier as a search key, and packet processing unit identifying information and a  
10 transmitting-side VPN identifier corresponding to the VPN identifier as the search key, the entry registering means executes a process for registering in the routing table only one or more entries that, among the plurality of entries as the candidates for registration, the packet processing unit identifying information included in the entry indicates the certain packet processing unit, and that the VPN identifier as the search  
15 key is the same as the transmitting-side VPN identifier (Para. 0050, 0086).

f. As per claim 8, Akahane discloses a packet processing device provided in a packet routing device accommodating a plurality of virtual private networks (VPNs) with at least one other packet processing device, comprising:

a receiving-side packet processing unit (Fig. 4-5);

20 a transmitting-side packet processing unit (Fig. 4-5); and

a routing table, wherein the receiving-side packet processing unit receives a packet received at a receipt port of the packet routing device and searches for other packet processing device for forwarding the packet to a transmission port from the routing table by use of a receiving-side VPN identifier of the packet, the receiving-side

5 VPN identifier indicating a VPN to which a transmission source of the packet belongs, and the transmitting-side packet processing unit receives a packet forwarded from other packet processing device and searches for a transmission port of the packet from the routing table by use of a transmitting-side VPN identifier of the packet, the transmitting-side VPN identifier indicating a VPN to which a transmission destination of the packet

10 belongs (Para. 0054,0058-0060,0062,0065-0066,0068-0069,0071-0072,0079,0088). However, Akahane fails to explicitly disclose where the routing table has an entry mutually used with respect to both of routing for packet communication in a VPN when a transmitting-side VPN identifier is the same as a receiving-side VPN identifier and routing for packet communication between different VPNs when a transmitting-side VPN

15 identifier is different from a receiving-side VPN identifier.

Rekhter teaches wherein the routing table has an entry mutually used with respect to both of routing for packet communication in a VPN when a transmitting-side VPN identifier is the same as a receiving-side VPN identifier and routing for packet communication between different VPNs when a transmitting-side VPN identifier is

20 different from a receiving-side VPN identifier (Col. 30 line 50 through Col. 32 line 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of internal/external VPN determination and routing

with the VPN routing system of Akahane. One of ordinary skill in the art would have done so for the purpose of preserving network resources and providing proper per-VPN routing if a packet is to be routed within a specified internal VPN rather than an external VPN (Col 31 lines 29-48).

5

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

10 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant Ford whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharja can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

- 5 Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic
- 10 Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER